

I claim:

1. A spore detection cell comprising:
 - a. An expanded fluorocarbon tube,
 - b. An optical fitting connected to each end of said expanded fluorocarbon tube as a means of passing radiation through the said expanded fluorocarbon tube,
 - c. A chamber for the attachment of said optical fittings,
 - d. Means of introducing air into the interior of the said expanded fluorocarbon tube,
 - e. Means of introducing reagent into the interior of said expanded fluorocarbon tube.
2. A spore detection cell of Claim 1 with only one said optical fitting for introducing and receiving radiation of the said expanded fluorocarbon tube.
3. A spore detection cell comprising:
 - a. An expanded fluorocarbon tube,
 - b. An optical fitting connected to each end of said expanded fluorocarbon tube as a means of passing radiation through the said expanded fluorocarbon tube,

- c. Means of introducing air into the interior of the said expanded fluorocarbon tube,
 - d. Means of introducing reagent into the interior of said expanded fluorocarbon tube,
 - e. Means of vacating the reagent from the interior of said expanded fluorocarbon tube.
4. A spore detection cell of Claim 3 with only one said optical fitting for introducing and receiving radiation of the said expanded fluorocarbon tubing.
5. A method of detecting spores of a bacillus extracting and analyzing pyridine-2,6-dipicolinic acid, the method comprising the steps of:
- Combining a gem chlorinated hydrocarbon with a hindered nitrogen base and reacting the mixture with pyridine-2,6-dipicolinic acid to form a reaction product and detecting one of the products of the reaction with molecular fluorescence or absorbance.
6. The method of Claim 5 wherein the said gem polychlorinated hydrocarbon is selected from a group consisting of trichloroethene, chloroform or bromoform.

7. The method of Claim 5 wherein the said hindered nitrogen base is selected from a group consisting of tetraethylammonium hydroxide, tetrapropyl ammonium hydroxide, tetrabutylammonium hydroxide.
8. The method of Claim 5 wherein the base is selected from a group consisting of thiophenoxide or other phenoxides.
9. The method of Claim 5 wherein an organic base modifier is added to the reagent from a group consisting of pyrimidine or a derivative such as hexahydro pyrimido pyrimidine, hexahydro methyl pyrimido pyrimidine. Other modifiers include nitrogen heterocyclic compound including acetaldehydeammonium trimer, 1,5-diazabicyclo [4.3.0] non-5-ene, 1,4-diazabicyclo [2.2.2] octane, 1,8-diazabicyclo [5.4.0] undec-7-ene.